

CLAIMS

What is claimed is:

Sub C1 1. A method for transmitting the location of a vehicle to a location remote from the vehicle comprising the steps of:

5 a) determining a location of the vehicle relative to a road network defined as a first location;

b) determining a change in the location of the vehicle relative to the road network defined as a second location; and

10 c) communicating the location of the vehicle to the remote location based upon said change in location.

Sub D2 2. The method of claim 1 wherein the location of the vehicle is communicated in said step b) with reference to the road network.

15 3. The method of claim 2 wherein the road network is in a map database.

4. The method of claim 3 wherein the location of the vehicle is determined in said step a) by map-matching.

20 5. The method of claim 1 wherein a third location is arranged between the first and second locations, and step c) includes communicating the first location at a first frequency, suppressing communication of the third location, and communicating the second location at a second frequency.

Sub D2 6. The method of claim 5 wherein the first and second frequencies are different.

Sub F1 7. The method of claim 1 wherein the first location is a first street and the second location is a second street.

5 8. The method of claim 1 wherein the first location is a first street address and the second location is a second street address.

Sub 9. An apparatus for a navigation system for transmitting the location of a vehicle to a location remote from the vehicle, the apparatus comprising:

10 at least one position determining device for providing a vehicle location signal;

a database having a map database with a road network;

a processor interconnected to said at least one positioning device and said database for determining the location of the vehicle relative to said map;

15 a transmitter for producing a transmission signal to the remote location having the location of the vehicle;

a trigger device for triggering said transmission signal, wherein said triggering device determines a location of the vehicle relative to said road network defined as a first location and determines a change in the location of the vehicle relative to said road network defined as a second location, and said trigger device commands said transmitter to produce said
20 transmission signal based upon the change in location.

Sub F1 10. The apparatus of claim 9 wherein the location of the vehicle is communicated in with reference to said road network.

11. The apparatus of claim 10 wherein the location of the vehicle is determined by map-matching.

12. The apparatus of claim 9 wherein a third location is arranged between the first and second locations, and step c) includes communicating the first location at a first frequency, suppressing communication of the third location, and communicating the second location at a second frequency.

13. The apparatus of claim 12 wherein the first and second frequencies are different.

14. A method for transmitting the location to a location remote from the vehicle comprising the steps of:

a) determining a location of the vehicle relative to a road network defined as a first location;

b) determining a new location of the vehicle relative to the road network defined as a second location;

c) communicating the first location of the vehicle to the remote location at a first frequency; and

d) communicating the second location of the vehicle to the remote location at a second frequency different from the first frequency.

15. The method of claim 12 wherein the location of the vehicle is communicated in said step b) with reference to the road network.

16. The method of claim 13 wherein the road network is in a map database.

17. The method of claim 14 wherein the location of the vehicle is determined in said step a) by map matching.

Sub D5 18. The method of claim 14 wherein the first location is a freeway and the second location is a residential street, wherein the first frequency is less than the second frequency.

S27 F1 19. The method of claim 14 wherein the first and second frequencies are based on a distance traveled by the vehicle.

Sub D6 20. The method of claim 14 wherein the first location is a high traffic road and the second location is a low traffic road, wherein the first frequency is less than the second frequency.

Sub A2 21. The method of claim 12 wherein the first location is part of a dense road network and the second location is part of a sparse road network wherein the first frequency is greater than the second frequency.

22. The method of claim 12 wherein the first and second locations have first and second speed limits, respectively, with the first speed limit being greater than the second speed limit, wherein the first frequency is less than the second frequency.

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